

Please amend the application as follows.

***In the Specification:***

Please replace the current Specification with the Substitute Specification filed herewith.

***In the Sequence Listing:***

Please replace the current Sequence Listing with the Substitute Sequence Listing submitted herewith.

***In the Claims:***

Please cancel claims 1, 17, 19, 26-84, 92-117, and 125-147 without prejudice.

Please replace claims 85, 118, 148, and 158 with the following amended claims:

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C<sup>2</sup> 85. (Once Amended) A method of treating an autoimmune system disease or disorder comprising administering to an individual, a therapeutically effective amount of an antagonistic antibody or portion thereof that specifically binds a protein consisting of an amino acid sequence of amino acid residues 134-285 of SEQ ID NO:2.

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C<sup>3</sup> 118. (Once Amended) A method of treating rheumatoid arthritis comprising administering to an individual, a therapeutically effective amount of an antagonistic antibody or portion thereof that specifically binds a protein consisting of the amino acid sequence of amino acid residues 134-285 of SEQ ID NO:2.

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*Sub D2*  
C4 148. (Once Amended) A method of inhibiting leukocyte proliferation, differentiation or survival comprising administering to an individual, a therapeutically effective amount of an antagonistic antibody or portion thereof that specifically binds a protein consisting of an amino acid sequence selected from the group consisting of:  
(a) the amino acid sequence of amino acid residues n to 285 of SEQ ID NO:2, where n is an integer in the range of 2-190;  
(b) the amino acid sequence of amino acid residues 1 to m of SEQ ID NO:2, where m is an integer in the range of 274 to 284; and  
(c) the amino acid sequence of amino acid residues n to m of SEQ ID NO:2, where n is an integer in the range of 2-190 and m is an integer in the range of 274-284.

*Sub B3*  
C5 158. (Once Amended) A method of inhibiting leukocyte proliferation, differentiation or survival comprising administering to an individual, a therapeutically effective amount of an antagonistic antibody or portion thereof that specifically binds a protein consisting of an amino acid sequence of amino acid residues 134-285 of SEQ ID NO:2.

Please add new claims 165 to 182 as follows:

165. (New) The method of claim 85 wherein the autoimmune disease or disorder is systemic lupus erythematosus.

C6 166. (New) A method of treating an autoimmune disease or disorder comprising administering to an individual, a therapeutically effective amount of an antagonistic antibody or portion thereof that specifically binds to an isolated recombinant Neutrokin- $\alpha$  protein purified from a cell culture wherein the cells in said cell culture comprise a polynucleotide encoding amino acids 1-285 of SEQ ID NO:2 operably associated with a regulatory sequence that controls gene expression.

167. (New) The method of claim 166 wherein the antibody or portion thereof is a monoclonal antibody.

168. (New) The method of claim 166 wherein the antibody or portion thereof is a polyclonal antibody.

169. (New) The method of claim 166 wherein the antibody or portion thereof is a Fab fragment.

170. (New) The method of claim 166 wherein the antibody or portion thereof is labeled.

171. (New) The method of claim 170 wherein the label is selected from the group consisting of:

- (a) an enzyme label;
- (b) a radioisotope;
- (c) a fluorescent label; and
- (d) biotin.

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ent. 172. (New) The method of claim 171 wherein the label is a radioisotope selected from the group consisting of:

- (a)  $^{125}\text{I}$ ;
- (b)  $^{121}\text{I}$ ;
- (c)  $^{131}\text{I}$ ;
- (d)  $^{112}\text{In}$ ; and
- (e)  $^{99\text{m}}\text{Tc}$ .

173. (New) The method of claim 166 wherein the autoimmune disease or disorder is systemic lupus erythematosus.

174. (New) A method of treating rheumatoid arthritis comprising administering to an individual, a therapeutically effective amount of an antagonistic antibody or portion thereof that specifically binds to an isolated recombinant Neutrokin- $\alpha$  protein purified from a cell culture wherein the cells in said cell culture comprise a polynucleotide encoding amino acids 1-285 of SEQ ID NO:2 operably associated with a regulatory sequence that controls gene expression.

175. (New) The method of claim 174 wherein the antibody or portion thereof is a monoclonal antibody.

176. (New) The method of claim 174 wherein the antibody or portion thereof is a polyclonal antibody.

177. (New) The method of claim 174 wherein the antibody or portion thereof is a Fab fragment.

178. (New) The method of claim 174 wherein the antibody or portion thereof is labeled.

179. (New) The method of claim 178 wherein the label is selected from the group consisting of:

- (a) an enzyme label;
- (b) a radioisotope;
- (c) a fluorescent label; and
- (d) biotin.

180. (New) The method of claim 179 wherein the label is a radioisotope selected from the group consisting of:

- (a)  $^{125}\text{I}$ ;
- (b)  $^{121}\text{I}$ ;
- (c)  $^{131}\text{I}$ ;
- (d)  $^{112}\text{In}$ ; and
- (e)  $^{99\text{m}}\text{Tc}$ .

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181. (New) The method of claim 148 wherein the leukocyte is a lymphocyte.

182. (New) The method of claim 158 wherein the leukocyte is a lymphocyte.

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